



U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

Jul 29 2010

Exemption No. 9902A
Regulatory Docket No. FAA-2008-1128

Mr. Doug Jeanes
Executive Director
Cavanaugh Air Museum
4572 Claire Chennault
Addison, TX 75001

Dear Mr. Jeanes:

This letter is to inform you that we have granted your petition to amend Exemption No. 9902. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

The Basis for Our Decision

By letter posted to the docket on July 9, 2010, you petitioned the Federal Aviation Administration (FAA) on behalf of Cavanaugh Air Museum d.b.a. Cavanaugh Flight Museum (CFM) for an amendment to Exemption No. 9902. That exemption from §§ 91.315, 91.319(a)(2), 119.5(g), and 119.21(a) of Title 14, Code of Federal Regulations (14 CFR) allows CFM to operate certain aircraft for the purpose of carrying passengers for compensation or hire on local flights for educational and historical purposes. The amendment you request would add CFM's North American T-28, N52524, to the current exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to CFM.

The FAA has issued a grant of exemption in circumstances similar in all material respects to those presented in your petition. In Grant of Exemption No. 6802, as amended, the FAA found that preserving historic U.S. aircraft is in the public interest, in the same manner that preserving historic buildings, landmarks, and neighborhoods has been determined to be in the public interest. While aviation history can be represented with static displays in museums in

the same manner that historic landmarks can be represented in museums, the public has shown a willingness to support the preservation and operation of historic aircraft and a desire to experience flights in them.

Having reviewed your reasons for requesting an exemption, I find that—

- they do not differ materially from those presented by the petitioners in Exemption No. 6802, as amended;
- the reasons stated by the FAA for granting that exemption also applies to the situation you present; and
- a grant of exemption is in the public interest.

Our Decision

Under the authority contained in 49 U.S.C. 40113 and 44701, which the FAA Administrator has delegated to me, I hereby grant Cavanaugh Flight Museum an exemption from 14 CFR §§ 91.315, 91.319(a)(2), 119.5(g), and 119.21(a) to the extent necessary to operate certain aircraft for the purpose of carrying passengers for compensation or hire on local flights for educational and historical purposes, subject to the conditions and limits described below.

Conditions and Limitations

1. This exemption applies only to the aircraft listed below:
 - a. Douglas B-26, N7705C;
 - b. Douglas EA-1E, N65164;
 - c. Goodyear FG1D, N451FG;
 - d. Grumman TBM, N86280;
 - e. Grumman S-2 Tracker, N37AM;
 - f. North American B-25, N7687C;
 - g. North American P-51, N51JC;
 - h. North American T-28, N228TS;
 - i. North American T-28, N828JC; and
 - j. North American T-28, N52524.
2. CFM must maintain its limited category airplane in accordance with the:
 - a. Maintenance requirements as specified in the appropriate type certificate data sheet, as amended;
 - b. FAA-approved maintenance inspection program that meets the requirements of § 91.409(e), (f)(4), and (g); and
 - c. The appropriate military technical manuals.

3. CFM must maintain its experimental category aircraft in accordance with the:
 - a. Maintenance requirements as specified in the appropriate type certificate data sheet, as amended;
 - b. FAA-approved maintenance inspection program that meets the requirements of § 91.409(e), (f)(4), and (g); and
 - c. The appropriate military technical manuals.
4. The pilot in command (PIC) for the multiengine airplane must:
 - a. Hold at least a commercial pilot certificate with an airplane multiengine land rating and airplane instrument rating;
 - b. Hold at least an FAA second class medical;
 - c. Have completed within the previous 12 calendar months, CFM's PIC qualification flight and ground training program in the aircraft for which PIC privileges are sought;
 - d. Have completed within the previous 12 calendar months, CFM's PIC proficiency check in the aircraft for which PIC privileges are sought;
 - e. Have at least a total of:
 - i. 2,500 hours of aeronautical flight experience, 1,000 hours of aeronautical flight experience in a multiengine land airplane, and 25 hours in the specific aircraft; or
 - ii. Have at least a total of 1,000 hours of aeronautical flight experience, 200 hours of aeronautical flight experience in a multiengine land airplane, and 100 hours and 50 takeoffs and 50 landings in the specific aircraft; and
 - f. Have accomplished within the previous 90 days, three takeoffs and three landings to a full stop in the specific aircraft for which PIC privileges are sought. For initial PIC qualification in the specific aircraft or if the pilot has allowed his/her takeoff and landing currency to lapse in the specific aircraft, the takeoff and landing currency may not be accomplished during passenger-carrying operations.
5. The PIC for the single-engine airplane must:
 - a. Hold at least a commercial pilot certificate with an airplane single-engine land rating and airplane instrument rating;
 - b. Hold at least an FAA second class medical;
 - c. Have completed within the previous 12 calendar months, CFM's PIC qualification flight and ground training program in the aircraft for which PIC privileges are sought;

- d. Have completed within the previous 12 calendar months, CFM's PIC proficiency check in the aircraft for which PIC privileges are sought;
 - e. Have at least a total of:
 - i. 2,500 hours of aeronautical flight experience, 1,000 hours of aeronautical flight experience in a single-engine land airplane, and 25 hours in the specific aircraft; or
 - ii. 1,000 hours of aeronautical flight experience, 200 hours of aeronautical flight experience in a single-engine land airplane, and 100 hours and 50 takeoffs and 50 landings in the specific aircraft; and
 - f. Have accomplished within the previous 90 days, three takeoffs and three landings to a full stop in the specific aircraft for which PIC privileges are sought. For initial PIC qualification in the specific aircraft or if the pilot has allowed his/her takeoff and landing currency to lapse in the specific aircraft, the takeoff and landing currency may not be accomplished during passenger-carrying operations.
6. The second in command (SIC) for the multiengine aircraft must:
- a. Hold at least a commercial pilot certificate with an airplane multiengine land rating and an airplane instrument rating;
 - b. Hold at least an FAA second class medical;
 - c. Have completed within the previous 12 calendar months, CFM's SIC qualification and recurrent flight and ground training program in each specific airplane for which SIC privileges are sought;
 - d. Have completed within the previous 12 calendar months, CFM's SIC proficiency check in each specific airplane for which SIC privileges are sought;
 - e. Have at least a total of:
 - i. 1,500 hours of aeronautical flight experience and 250 hours of aeronautical flight experience in a multiengine land airplane; or
 - ii. 500 hours of aeronautical flight experience, 100 hours of aeronautical flight experience in a multiengine land aircraft, and 25 hours and 10 takeoffs and 10 landings in each specific airplane for which SIC privileges are sought; and
 - f. Have accomplished within the previous 90 days, three takeoffs and three landings to a full stop in the airplane for which SIC privileges are sought. For initial SIC qualification in each specific airplane or if the pilot has allowed his/her takeoff and landing currency to lapse in the specific airplane, the takeoff and landing currency may not be accomplished during passenger-carrying operations.

7. CFM must develop and maintain a written multiengine aircraft specific qualification and recurrent ground training program for its PICs and SICs in each multiengine aircraft that covers the training subjects listed below. The PIC and SIC in each specific aircraft must receive the following training within the previous 12 calendar months and be found to be competent and proficient in these areas prior to serving in a PIC or SIC position in the specific multiengine aircraft:

REQUIRED TRAINING TASKS	
a.	General information and description of the airplane;
b.	Airplane limitations;
c.	Airplane servicing;
d.	Airspeeds;
e.	Fuel system;
f.	Electrical system;
g.	Hydraulic system;
h.	Engines;
i.	Instruments and avionics;
j.	Landing gear, brakes, controls, and flaps systems;
k.	Propeller;
l.	Emergency procedures, including—
(i)	Instruction in emergency assignments and procedures, including coordination among crewmembers;
(ii)	Individual instruction in the location, function, and operation of emergency equipment, including—
A.	First aid equipment and its proper use; and
B.	Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires;
(iii)	Instruction in the handling of emergency situations, including—
A.	Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas; and
B.	Illness, injury, or other abnormal situations involving passengers or crewmembers;
m.	Weight and balance;
n.	Performance planning;
o.	Airplane's checklist; and
p.	Differences in type.

8. CFM must develop and maintain a written airplane single-engine qualification and recurrent ground training program for its PIC in each single-engine airplane that covers the areas of operations and tasks, as listed in the following table of training tasks. Each PIC must successfully accomplish this airplane specific training before being assigned PIC responsibilities and duties. Each PIC must receive and accomplish the following training within the previous 12 calendar months and be found to be competent and proficient in these areas prior to serving in a PIC position in each single-engine airplane:

REQUIRED TRAINING TASKS	
a. General information and description of the airplane;	
b. Airplane limitations;	
c. Airplane servicing;	
d. Airspeeds;	
e. Fuel system;	
f. Electrical system;	
g. Hydraulic system;	
h. Engines;	
i. Instruments and avionics;	
j. Landing gear, brakes, controls, and flaps systems;	
k. Propeller;	
l. Emergency procedures, including—	
(i) Instruction in emergency assignments and procedures, including coordination among crewmembers;	
(ii) Individual instruction in the location, function, and operation of emergency equipment, including—	
A. First aid equipment and its proper use; and	
B. Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires;	
(iii) Instruction in the handling of emergency situations, including—	
A. Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas; and	
B. Illness, injury, or other abnormal situations involving passengers or crewmembers;	
m. Weight and balance;	
n. Performance planning; and	

o. Airplane's checklist.

9. CFM must develop and maintain a written multiengine qualification and recurrence flight training program for its PIC in the specific multiengine aircraft that covers the areas of operations and tasks, as listed in the following table of training tasks. Each PIC in multiengine aircraft must successfully accomplish this training in each specific aircraft before being assigned PIC responsibilities and duties. Each PIC in multiengine aircraft must receive and successfully accomplish the following training within the previous 12 calendar months and be found to be competent and proficient in these areas prior to serving in a PIC position in each specific aircraft for CFM:

REQUIRED TRAINING TASKS	
a. Preflight Preparation, including—	<ul style="list-style-type: none"> (i) Airplane exam (oral or written); and (ii) Airplane performance & limitations (oral or written);
b. Ground Operations, including—	<ul style="list-style-type: none"> (i) Preflight inspection; (ii) Cockpit resource management; (iii) Powerplant start procedures; (iv) Taxiing; and (v) Pre-takeoff checks;
c. Takeoffs & Departures, including—	<ul style="list-style-type: none"> (i) Normal & crosswind takeoffs; (ii) Powerplant failure; and (iii) Rejected takeoffs;
d. In-flight Maneuvers, including—	<ul style="list-style-type: none"> (i) Steep turns; (ii) Approach to stalls; (iii) Powerplant failure; and (iv) Specific flight characteristics;
e. Landings & Approaches to Landing, including—	<ul style="list-style-type: none"> (i) Normal & crosswind approaches & landing; (ii) Maneuvering to a landing with a simulated powerplant failure; (iii) Rejected landing; and (iv) Landing from a no flap or a nonstandard flap approach;
f. Normal & Abnormal Procedures, including—	

<ul style="list-style-type: none"> (i) Powerplant; (ii) Fuel system; (iii) Electrical system; (iv) Hydraulic system; (v) Environmental & pressurization system (as appropriate and if equipped); (vi) Fire detection & extinguishing system; (vii) Navigation & avionics system; (viii) Automatic flight control system, electronic flight instrument system, & related systems (as appropriate and if equipped); (ix) Flight control system; (x) Anti-ice & de-ice system; and (xi) Airplane & personal emergency equipment;
<p>g. Emergency Procedures, including—</p> <ul style="list-style-type: none"> (i) In-flight fire & smoke removal; (ii) Rapid decompression (as appropriate and if equipped with a pressurization system); (iii) Emergency descent; (iv) Ditching; and (v) Emergency evacuation;
<p>h. Postflight Procedures, including—</p> <ul style="list-style-type: none"> (i) After landing procedures; and (ii) Parking and securing airplane.

10. CFM must develop and maintain a written single-engine qualification and recurrence flight training program for its PIC in the specific single-engine aircraft that covers the areas of operations and tasks, as listed in the following table of training tasks. Each PIC in single-engine aircraft must successfully accomplish this training in each specific aircraft before being assigned PIC responsibilities and duties. Each PIC in single-engine aircraft must receive and successfully accomplish the following training within the previous 12 calendar months and be found to be competent and proficient in these areas prior to serving in a PIC position in each specific aircraft for CFM:

REQUIRED TRAINING TASKS
<p>a. Preflight Preparation, including—</p> <ul style="list-style-type: none"> (i) Airplane exam (oral or written); and (ii) Airplane performance & limitations (oral or written);

<p>b. Ground Operations, including—</p> <ul style="list-style-type: none"> (i) Preflight inspection; (ii) Cockpit resource management; (iii) Powerplant start procedures; (iv) Taxiing; and (v) Pre-takeoff checks;
<p>c. Takeoffs & Departures, including—</p> <ul style="list-style-type: none"> (i) Normal & crosswind takeoffs; (ii) Powerplant failure; and (iii) Rejected takeoffs;
<p>d. In-flight Maneuvers, including—</p> <ul style="list-style-type: none"> (i) Steep turns; (ii) Approach to stalls; (iii) Powerplant failure; and (iv) Specific flight characteristics;
<p>e. Landings & Approaches to Landing, including—</p> <ul style="list-style-type: none"> (i) Normal & crosswind approaches & landing; (ii) Maneuvering to a landing with a simulated powerplant failure; (iii) Rejected landing; and (iv) Landing from a no flap or a nonstandard flap approach;
<p>f. Normal & Abnormal Procedures, including—</p> <ul style="list-style-type: none"> (i) Powerplant; (ii) Fuel system; (iii) Electrical system; (iv) Hydraulic system; (v) Environmental system (as appropriate and if equipped); (vi) Fire detection & extinguishing system; (vii) Navigation & avionics system; (viii) Automatic flight control system, electronic flight instrument system, & related systems (as appropriate and if equipped); (ix) Flight control system; (x) Anti-ice & de-ice system; and (xi) Airplane & personal emergency equipment;
<p>g. Emergency Procedures, including—</p>

<ul style="list-style-type: none"> (i) In-flight fire & smoke removal; (ii) Emergency descent; (iii) Ditching; and (iv) Emergency evacuation;
<ul style="list-style-type: none"> h. Postflight Procedures, including— <ul style="list-style-type: none"> (i) After landing procedures; and (ii) Parking and securing airplane.

11. CFM must develop and maintain a written multiengine qualification and recurrence flight training program for its SIC in the specific multiengine aircraft that covers the areas of operations and tasks, as listed in the following table of training tasks. Each SIC in multiengine aircraft must successfully accomplish this training in each specific aircraft before being assigned SIC responsibilities and duties. Each SIC in multiengine aircraft must receive and successfully accomplish the following training within the previous 12 calendar months and be found to be competent and proficient in these areas prior to serving in an SIC position in each specific aircraft for CFM:

REQUIRED TRAINING TASKS:
a. Operational procedures applicable to the powerplant, equipment, and systems;
b. Performance specifications and limitations;
c. Normal, abnormal, and emergency operating procedures;
d. Three takeoffs and three landings to a full stop as the sole manipulator of the flight controls;
e. Engine-out procedures and maneuvering with an engine out while executing the duties of SIC;
f. Crew resource management training; and
g. Familiarization with the airplane flight manual, placards, and markings.

12. CFM may not use a pilot nor may any pilot serve as a pilot in any airplane unless, since the beginning of the 12th calendar month before that service, that pilot has passed a competency check given by the FAA or an authorized check pilot in that specific airplane to determine the pilot's competence in practical skills and techniques in the appropriate aircraft. The competency check will consist of the appropriate maneuvers and procedures currently required for the original issuance of the commercial pilot certificate. The FAA's Dallas Flight Standards District Office (FSDO) will determine what maneuvers and procedures are critical, such as preflight preparation, ground operations, takeoffs and departures, and normal procedures, etc., and maneuvers and procedures that may be unsafe for a particular airplane.

13. Recurrent flight training for pilots must include, at least, flight training in the maneuvers and procedures in this exemption. However, satisfactory completion of the check required by this exemption within the preceding 12 calendar months may be substituted for recurrent flight training.
14. CFM must document and record all ground and flight training and/or testing required by this grant of exemption in a manner acceptable to the FAA's Dallas FSDO. That documentation and records must contain the following information:
 - a. Date of each training session;
 - b. Date of each testing session;
 - c. The amount of time of each session of ground and flight training given;
 - d. The amount of time of each session of ground and flight testing given;
 - e. Location where each session of ground and flight training was given;
 - f. Location where each session of ground and flight testing was given;
 - g. The airplane identification number in which each flight training session was received;
 - h. The airplane identification number in which each flight testing session was received;
 - i. The name and certificate number of the pilot who provided each session of training;
 - j. The name and certificate number of the pilot who provided each session of testing;
 - k. The signature and printed name of the pilot who received the training. That pilot's signature will serve as a verification of having received each session of training; and
 - l. The signature and printed name of the pilot who received the testing. That pilot's signature will serve as a verification of having received each session of testing.
15. When requested, CFM's pilot qualification and recurrent ground- and flight-training programs and/or records listed in conditions above must be made available to the Dallas FSDO, 1431 Greenway, Irving, Texas 75063, (972) 582-1800.
16. CFM must have the services of an FAA-certificated airframe and powerplant mechanic or an appropriately rated repair station available at all stopovers to perform all required maintenance inspections and repairs.
17. CFM will maintain the following information and records and will make those records available for review to the FAA when requested:

- a. The name of each pilot crewmember CFM authorizes to conduct flight operations in its airplane under the terms of this exemption;
 - b. Copies of each PIC and SIC pilot certificate, medical certificate, qualifications, and initial and recurrent training and testing documentation to comply with the conditions listed above; and
 - c. Records of maintenance performed and maintenance inspection records to comply with the conditions above, as appropriate. Maintenance and inspection records must meet the requirements of §§ 43.9, 43.11, and 91.405.
18. Before permitting a person to be carried on board its airplane for the purposes authorized under this exemption, CFM will inform that person that its airplane hold only a limited airworthiness certificate; the significance of the airworthiness certificate as compared to a standard airworthiness certificate; and that the FAA has authorized this flight under a grant of exemption from the requirements of §§ 91.315, 91.319, 119.5(g), and 119.21(a). The explanation of the significance of a limited airworthiness certificate, experimental airworthiness certificate compared to a standard airworthiness certificate must include at least the following information:
- a. The FAA has not established nor has it approved limited category airworthiness certificated airplane manufacturing standards. The FAA has not established nor has it approved experimental category airworthiness certificated airplane manufacturing standards. In contrast, standard category airworthiness certificated airplanes are manufactured to FAA-approved standards, including standards addressing the design of the airplane and life-limited parts;
 - b. Limited category airworthiness certificated airplanes are issued when the FAA finds the airplane—
 - i. Has been previously issued a limited category type certificate and the airplane conforms to that type certificate; and
 - ii. To be in a good state of preservation and repair and is in a safe operating condition;
 - c. An airplane may be issued an experimental airworthiness certificate for the purpose of exhibition when the airplane is intended only for exhibition of the airplane's flight capabilities, performance, or unusual characteristics at airshows, motion picture, television, and similar productions and the maintenance of exhibition flight proficiency, including (for persons exhibiting the airplane) flying to and from such airshows and productions;
 - d. Standard category airworthiness certificates are issued for an airplane when the FAA finds the—
 - i. Airplane has been built and maintained in accordance with that airplane's type certification standards as established by the FAA; and

- ii. Airplane's inspection and maintenance requirements are in compliance with the applicable Federal Aviation Regulations.

19. CFM must notify the Dallas FSDO within 24 hours of any of the following occurrences by written report, by electronic mail, or by facsimile:

- a. Each in-flight fire in any system or area that requires activation of any fire suppression system or discharge of a portable fire extinguisher;
- b. Each exhaust system component failure, including the turbocharger components, that causes damage to any engine, structure, cowling, or components;
- c. Each airplane component or system that causes, during flight, accumulation or circulation of noxious fumes, smoke, or vapor in any portion of the cabin or crew area;
- d. Except for training, each occurrence of engine shutdown or propeller feathering, and the reason for such shutdown or feathering;
- e. Each failure of the propeller governing systems or feathering systems;
- f. Any landing gear system or component failure or malfunction, which requires use of emergency or standby extension systems;
- g. Each failure or malfunction of the wheel brake system that causes loss of brake control on the ground;
- h. Each airplane structure that requires major repair due to damage, deformation, or corrosion, and the method of repair;
- i. Each failure or malfunction of the fuel system, tanks, pumps, or valves;
- j. Each malfunction, failure, or defect in any system or component that requires taking emergency action of any type during the course of any flight; and
- k. For the purpose of this section, "during flight" means the period from the moment the airplane leaves the surface of the earth on takeoff until it touches down on landing.

20. All flight operations must be conducted:

- a. At a minimum operating altitude of not less than 1,000 feet above ground level (AGL);
- b. Between the hours of official sunrise and sunset, as established in the American Air Almanac, as converted to local time;
- c. Within a 25-statute-mile radius of the departure airport with landings only permitted at the departure airport;

- d. With a minimum flight visibility of not less than 3 statute miles and a minimum ceiling of not less than 1,500 feet AGL;
 - e. Passenger-carrying operations for compensation may be conducted at distances greater than 25 statute miles of the departure airport up to 50 statute miles with concurrence of the FAA FSDO having geographic responsibility for the aviation event. For such flights, landings are only permitted at the departure airport. The operator must provide information pertaining to the proposed route of flight, which will avoid densely populated areas or congested airways in accordance with 14 CFR § 91.319(c), for airplanes certificated in the experimental category. Those operators utilizing airplanes certificated in the limited category are not bound by the restriction regarding the avoidance of densely populated areas or congested airways;
 - f. For passenger-carrying flights greater than 25 statute miles from the departure airport and up to 50 statute miles, the PIC must obtain weather reports and forecasts prior to flight and valid for the duration of the proposed operation that indicate that the weather would be no less than 5 statute miles visibility and cloud ceilings no less than 2,000 feet AGL. Passenger-carrying operations shall be terminated if ceiling and visibility become less than the minimum required by these conditions and limitations. Weather forecasts listing discriminators such as probability (PROB), becoming (BECOMG), or temporarily (TEMPO) shall be limiting; and
 - g. The airplane may only be operated from an airport that has a fire station or fire-fighting services available or within close proximity of the airport.
21. No persons other than the assigned flight crewmembers may be permitted on the pilot station of the airplane during flight operations.
22. For all aircraft subject to this exemption, flight within 500 feet of another aircraft (i.e., formation flying) is prohibited. In addition, the PIC is prohibited from performing aerobatic flights while passengers are onboard the aircraft.
23. No persons other than the assigned flight crewmembers may be permitted to manipulate the flight controls during flight operations.
24. Except for essential crewmembers, all flight operations must carry no more than the maximum number of passengers permitted by the airplane's weight and balance limitations and number of approved seats in the airplane.
25. All airplanes must have the equipment listed in §§ 91.205(b) and 91.207 and that equipment must be in an operable condition during the flight.

26. CFM must hold and continue to hold a determination from the U.S. Internal Revenue Service that it is a § 501(c)(3) nonprofit, tax-exempt, charitable organization under §§ 509(a)(1) and 170(b)(1)(A)(vi) of the Internal Revenue Code.
27. CFM must notify the Dallas FSDO at least 5 working days (Mondays through Fridays) before conducting any PIC or SIC initial or recurrent qualification training and any PIC or SIC initial or recurrent proficiency checks required to be conducted under the terms of this grant of exemption.
28. No later than 72 hours prior to commencing flight operations under the terms of this grant of exemption, CFM must notify the jurisdictional FAA FSDO where it intends to conduct the flight operations and shall provide a copy of this exemption to that jurisdictional FAA FSDO.
29. Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or revocation of the exemption.

This exemption terminates on July 31, 2012, unless sooner superseded or rescinded.

Sincerely,

/s/

John W. McGraw
Acting Director, Flight Standards
Service